

Xiaoliang Zhu

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EDUCATION

Vanderbilt University

B.A. in Computer Science and Mathematics GPA: 4.0/4.0

Nashville, TN

Expected May 2023

- **Relevant Coursework:** Data Structure and Algo, Object-Oriented Design, Machine Learning, Operating System, Database

WORK EXPERIENCE

Goldman Sachs

Software Engineer Intern

New York, NY

Jun 2022 – Aug 2022

- Developed the functionalities for a cloud native ETL platform and optimized the pipeline transition performance
- Deployed a performance monitoring system, including designing RESTful API endpoints, integrating Lambda functions to feed Kinesis Data Stream, and writing Glue jobs to analyze and visualize metric data
- Designed and rebuilt the telemetry module with the builder and factory design patterns and achieved the feature of sending asynchronous HTTP requests with Scala concurrency APIs
- Refactored the platform configuration module with the Spark Plugin Framework, which accelerated the job initialization by around 40%

Vanderbilt University MINT Lab

Machine Learning Lab Researcher

Nashville, TN

Sep 2021 – May 2022

- Researched the catastrophic forgetting phenomenon of neural networks in Lifelong Machine Learning
- Surveyed techniques like Elastic Weight Consolidation and implemented packages using PyTorch and NumPy
- Experimented with improved packages using data from the MNIST database to form a task sequence, where the number of performance-maintained tasks increases by about 20%
- Constructed a lab website that details concepts and experiments, and published the site via GitHub

Tencent

Software Engineer Intern

Remote (Shenzhen, China)

Sep 2021 – Feb 2022

- Implemented Android components, unit testing tools, and Android Jetpack with a Tencent mentor
- Performed the demand analysis for a CRM platform and composed a detailed software architecture design
- Developed an Android application with TensorFlow Lite, which can recognize human skeletons and actions

Shanghai Hubu Tech Co., Ltd.

Software Engineer Intern

Shanghai, China

May 2021 – Aug 2021

- Crawled, transformed, and loaded over 200K+ tag and media data from 10 stock websites into the database
- Designed a high-level footage-selecting system and conducted a demanded analysis with UML graphs
- Developed RESTful APIs for the business website using Java Spring and Elastic Search engine
- Implemented Python automatic pipelines to convert advertisement scripts into tag groups and search the most related footages from the storage, and encapsulated those pipelines with Flask
- Created a PC application using the wxPython library to quickly download and classify footage according to the given script and scene ids, which decreased the material collecting time by over 90%

HireBeat Inc.

Machine Learning Engineer Intern

Remote (New York)

Jan 2021 – Mar 2021

- Conducted data mining and cleaning on 3000+ job-describing documents to enrich the NLP dataset
- Extracted keyword phrases by constructing Word2Vec models, fine-tuning the text-summarization model T-5, and employing existing models like TopicRank
- Visualized word classification through conducting different clustering techniques, like K-means and Hierarchical clustering, with Matplotlib, and optimized model performances with silhouette analysis
- Showcased models and clustering results to the team, improving the keyword-recognizing accuracy of the Resume Optimization product by about 5%

SKILLS

Programming Languages: Java (Spring), Python (NumPy, PyTorch, Keras), Scala, C/C++, JavaScript, R

Framework & Big Data: Spring Boot, Flask, Vue, React.js, Terraform, SQL (MySQL), Spark

Amazon Web Services: API Gateway, CloudWatch, Glue, IAM, Lambda, S3, VPC, X-Ray